# PATENT COOPERATION TREATY





#### From the INTERNATIONAL BUREAU

To:

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## NOTIFICATION CONCERNING SUBMISSION OR TRANSMITTAL OF PRIORITY DOCUMENT

(PCT Administrative Instructions, Section 411)

| Date of mailing (day/month/year) 13 September 2004 (13.09.2004)    | Japan  |
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| Applicant's or agent's file reference                              | IMPORTANT NOTIFICATION   |
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| <u>Priority date</u>        | Priority application No. | Country or regional Office<br>or PCT receiving Office | Date of receipt of priority document |
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### **CLAIMS**

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5 a first power transmission member (11, 12),

a casing (19) provided with an opening (19k) that opens towards said first power transmission member,

a constant velocity universal joint (41, 42) connected to said first power transmission member, and

a second power transmission member (17, 18) connected to said first power transmission member via said constant velocity universal joint, wherein

an outer race (11a, 12a) of said constant velocity universal joint is formed integrally to a casing side end of said first power transmission member,

an inner race (17a, 18a) of said constant velocity universal joint is formed integrally to said second power transmission member,

said outer race is disposed so as to block said opening, said first power transmission member includes a drive shaft (11, 12), said casing includes a diff case (19) of a differential gear, and said second power transmission member includes a side gear (17, 18).

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- 3. (Amended) A power transmission apparatus comprising:
- a first power transmission member (11, 12),
- a casing (19) provided with an opening (19k) that opens towards said first power transmission member,

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- a constant velocity universal joint (41, 42) connected to said first power transmission member, and
- a second power transmission member (17, 18) connected to said first power transmission member via said constant velocity universal joint, wherein

an outer race (11a, 12a) of said constant velocity universal joint is formed integrally to a casing side end of said first power transmission member,

an inner race (17a, 18a) of said constant velocity universal joint is formed integrally to said second power transmission member,

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said outer race is disposed so as to block said opening,
said first power transmission member includes a propeller shaft (111),
said casing includes a diff carrier (30) of a differential gear, and
said second power transmission member includes an input shaft (27) of said
differential gear.

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- 4. (Amended) A power transmission apparatus comprising:
- a first power transmission member (11, 12),
- a casing (19) provided with an opening (19k) that opens towards said first power transmission member,

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- a constant velocity universal joint (41, 42) connected to said first power transmission member, and
- a second power transmission member (17, 18) connected to said first power transmission member via said constant velocity universal joint, wherein
- an outer race (11a, 12a) of said constant velocity universal joint is formed integrally to a casing side end of said first power transmission member,

an inner race (17a, 18a) of said constant velocity universal joint is formed integrally to said second power transmission member,

said outer race is disposed so as to block said opening, said first power transmission member includes a propeller shaft (111), said casing includes a casing (230) of a power distribution apparatus, and said second power transmission member includes an output shaft (227) of said

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power distribution apparatus.

### 5. (Cancelled)

6. (Amended) The power transmission apparatus according to any one of claims 2 - 4, wherein an outer surface of said outer race has a spherical configuration, said power transmission apparatus further comprising a seal member (33, 34) forming contact with a surface of said opening and an outer surface of said outer race.

7. A differential gear comprising:

a side gear (17, 18), and

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a first power transmission member (11, 12) connected to said side gear (17, 18) via a constant velocity universal joint (41, 42), wherein

an end of said first power transmission member has an inner surface (11c, 12c) defining an internal cavity (11d, 12d) that opens towards said side gear,

an outer race (11a, 12a) of said constant velocity universal joint is formed at said inner surface,

an inner race (17a, 18a) of said constant velocity universal joint is formed at a surface of said side gear.

8. (Amended) A differential gear comprising:

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an input shaft (27) provided at a side closer to a ring gear, and

a first power transmission member (111) provided at a side farther from the ring gear, connected to said input shaft via a constant velocity universal joint (141), wherein

an end of said first power transmission member has an inner surface (111c) defining an internal cavity (111d) that opens towards said input shaft,

an outer race (111a) of said constant velocity universal joint is formed at said inner surface, and

an inner race (27a) of said constant velocity universal joint is formed at a

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surface of said input shaft.

9. A power distribution apparatus comprising:

an output shaft (227), and

a propeller shaft connected to said output shaft via a constant velocity universal joint (241), wherein

an end of said propeller shaft has an inner surface (111c) defining an internal cavity (111d) that opens towards said output shaft,

an outer race (111a) of said constant velocity universal joint is formed at said inner surface, and

an inner race (227a) of said constant velocity universal joint is formed at a surface of said output shaft.

10. (Cancelled)